

An aerial photograph of a vast agricultural field, likely a tulip field, showing alternating rows of green and pinkish-red flowers. A small tractor is visible in the upper right corner, working in the field. A large, white, rounded rectangular overlay is positioned in the lower right, containing the title text.

# **CHANGING AGRICULTURAL SCENARIO IN GANDYAL VILLAGE**



# INTRODUCTION

A survey is defined as a brief interview or discussion with individuals about a specific topic.

Socio-economic survey is a type of survey in which we collect social and economic aspects of the selected area. It constitutes an extremely important aspect of geographical studies. It covers aspects such as income, amount and kind of education, occupation structure, language spoken, employment opportunities, literacy rate, etc. The present socio-economic survey is a sample survey and data is collected from about houses of 1 village. The data is obtained with the objective to analyse the socio-economic status of the village.

Agriculture is one of the oldest and most important occupations of man. Therefore any country almost half of the economic status depends on agriculture. Modernisation of agriculture is a process of transforming agriculture from traditional labour based agriculture to technology-based agriculture. Modernisation of agriculture is a continuing process and it is the essence of progress in agriculture and in rural areas. About 70% of the population is fed directly by only agriculture and remaining 30% of the population is fed by other sources like industries etc. Even though we are living in industrial age, still agriculture is the chief occupation of man and is the backbone of country's economy.

# AIMS AND OBJECTIVES

The main purpose of our study is to analyze the Changing Agricultural Scenario in the Study area. The following are the main aims and objectives of our study such as :-

- To analyze the changing agricultural scenario in our study area.
- To analyze the new agricultural tools used in agriculture.
- To analyze the improvement in agriculture due to use of inorganic fertilizers.
- To study the irrigation facilities in that area.

# METHODOLOGY

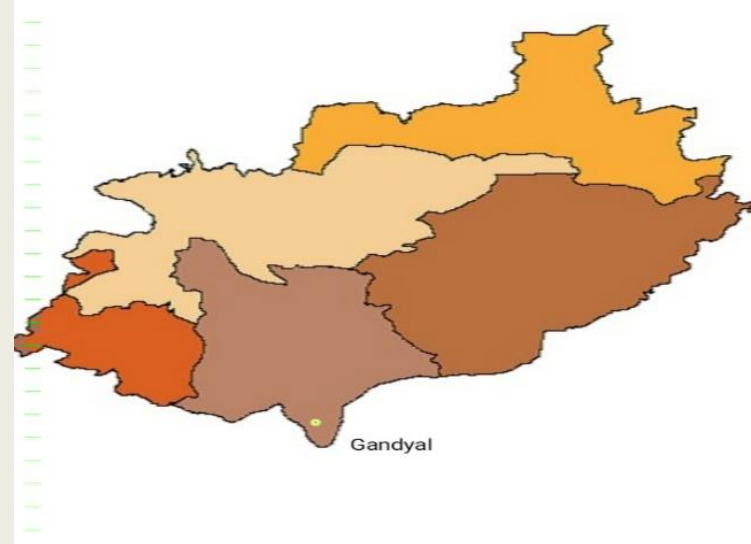
Methodology is a systematic approach towards the attainment of desirable objectives of the study through empirical technique and scientific tools. Methodology refers to the method or technique through which the field survey is conducted. In other words, methodology is a technique in which we do work in a systematic way. It plays a vital role in the representation and expression of factual knowledge in a systematic and synthesized manner. The present study is the empirical study in which we have applied both inductive as well as deductive approach.

In our study area we had used following analytical and statistical methods like:-

- (i) The elementary statistical methods have been used in the study in the form of average and percentage figures.
- (ii) Graphical representation of the data has been made with the help of bar diagram and pie charts.
- (iii) Apart from these ample of photographs have been a mode for better visible effects.

# LOCATION AND EXTENT

The study area is Gandyal village located in Kathua tehsil of Kathua district in Jammu and Kashmir. It is situated 8 km away from Kathua. The Gandyal village extends between 32°30'N latitude and 75°53'E longitude. Total geographical area of this village is about 671 Hectares. The average elevation of Gandyal village is about 391 meters above the mean sea level.

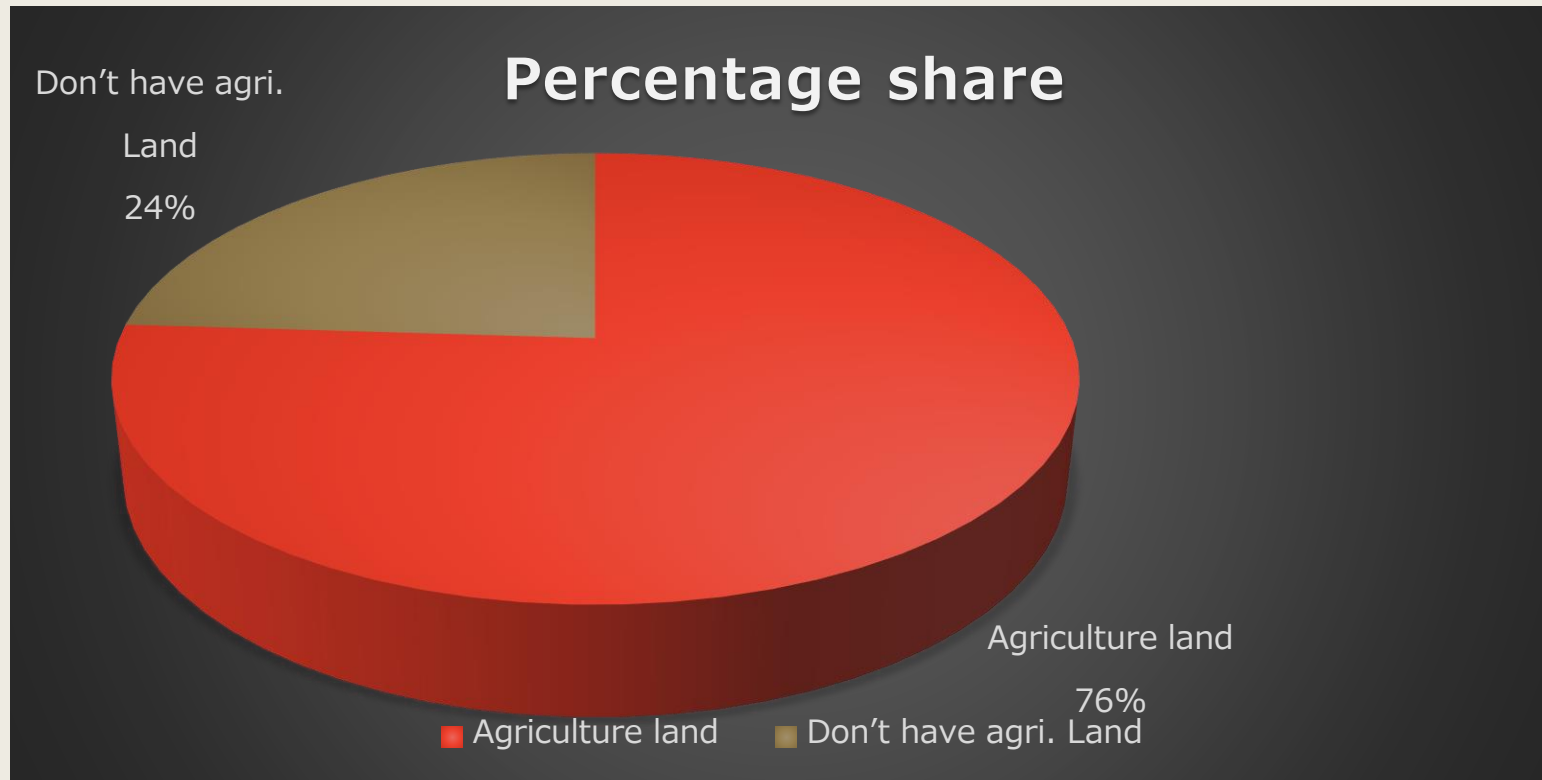


# AGRICULTURE IN GANDYAL

Gandyal is a medium size village located in Kathua District, The agriculture land in Gandyal is about 256 Hectares. About 209 hectares area is irrigated area and 47 hectares area is un-irrigated area. From total geographical area i.e. 671 hectares, about 398 hectares is non-agricultural land and about 18 hectares is cultivable waste land. In the study region food crops occupy largest area, Wheat is the leading crop followed by Rice and other food grains that occupy a small proportion of area. Out of 153 surveyed households, Only116 houses have their own agricultural land which accounts for 76% and remaining 37 houses don't have their own agricultural land which accounts for 24%.

Total Surveyed Houses	Persons having having Agricultural land and % age share	Persons not having Agricultural land and % age share
153 (100%)	116 (76%)	37 (24%)

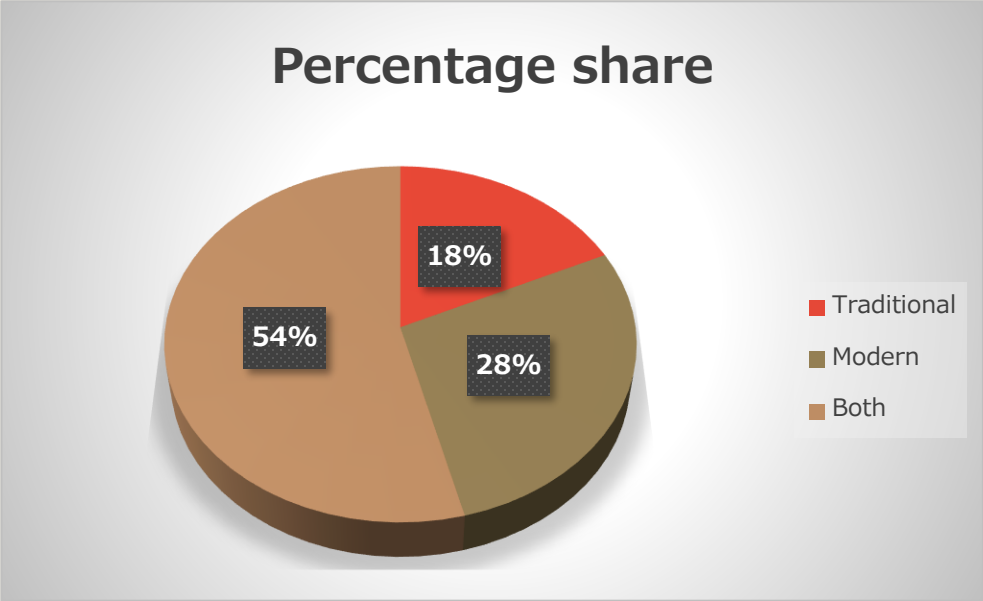
Pie diagram Showing Percentage share of Availability and non-availability of Agricultural land.



# TRADITIONAL METHOD OF AGRICULTURE

Traditional farming is very similar to organic farming where the farmer has a mixed farm of livestock, fruits and crops. Traditional farmers of the study area are using organic fertilizers and does their work manually. While the modern farmers are using modern methods of agriculture such as HYV seeds, inorganic fertilizers and machines for their various agricultural operations.

Methods used	No. of households	Percentage share
Traditional	21	18%
Modern	32	28%
Both	62	54%
Total	115	100%





INDICATORS	
TRADITIONAL	MODERN
Protected economy	Marketplace economy
Exploitative farming	Sustainable farming
Use of Organic Fertilizers	Use of inorganic fertilizers, pesticides etc
Unorganized	System is organized into SHG and Users group
Ignorance of Post harvest handling and value adding	Value addition
Generally non market oriented	Commercialization and agri business
Propagation through seeds	Biotechnology and transgenic for yield development
Old system like radio and print regime	Advanced system like computer

# ADVANCEMENT IN AGRICULTURAL TECHNOLOGY

Agricultural technology or agrotechnology is the use of technology in agriculture with the aim of improving yield, efficiency and profitability. Agricultural technology can be products, services or applications derived from agriculture that improve various input/output processes.

(i) Mechanization:- Agriculture mechanization is the use of machinery and equipment ranging from simple and basic hand tools to more sophisticated motorized equipment and machinery to perform agricultural operation. The requirement of power for certain operations like seedbed preparation, cultivation and harvesting becomes so great that the existing human and animal power in the country appears to be inadequate. As a result, the operations are either partially done or sometimes completely neglected, resulting in low yield due to poor growth or untimely harvesting or both. In village Gandyal, mechanization of agriculture has advanced considerably. Human and animal power sources are no longer the predominant sources on farms. Due to introduction of tractors, processes such as tilling of soil, threshing and transporting becomes more easier.

**Following are some of the machines which are used by the peoples in our study area.**



**TILLER**



**WATER  
PUMPS**



**COMBINE  
HARVESTERS**



**TRACTORS**



# WEATHER FORECASTING

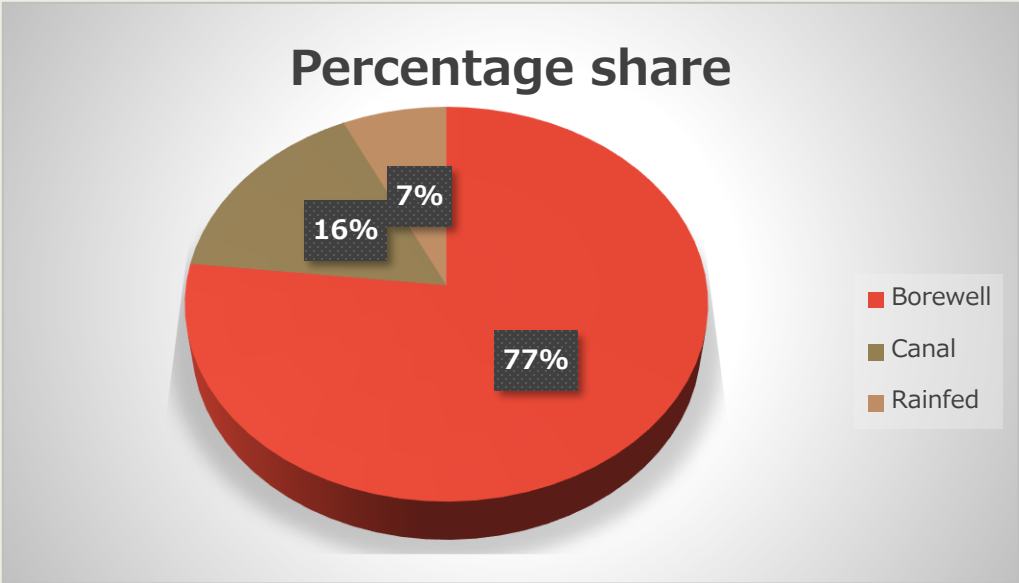
Weather forecasting is the prediction of atmospheric conditions based on location and time. In our study area, earlier the people or old persons who were not aware of these technologies. Now the peoples in our study area, are somehow taking the advantage of the technology like weather forecasting and plan their operations accordingly such as planting, irrigation, fertilizers, harvesting etc.

Houses having agricultural land	People using weatherforecasting technology	People not using weatherforecasting technology
116	72	44

# EXTENT OF IRRIGATION

The main traditional source of irrigation in Gandyal village was by canal irrigation. Water was transported by gravity from the Ravi river and tanks by the canal to the farmlands. Due to passage of time and increase in modern technology, irrigation practices also changes with time. At present the irrigation scenario in Gandyal village is totally changed farmers use borewells for irrigation, with the use of electric motors water is pumped out from the ground. This method of irrigation not only saves farmers time but also helps to reduce waste.

No. of people having agriculture land	Borewell and their %age share	Canal and their %age share	Rainfed and their %age share
116 (100%)	90 (77%)	18 (16%)	8 (7%)



## TRADITIONAL SOURCE OF IRRIGATION



## MODERN SOURCE OF IRRIGATION





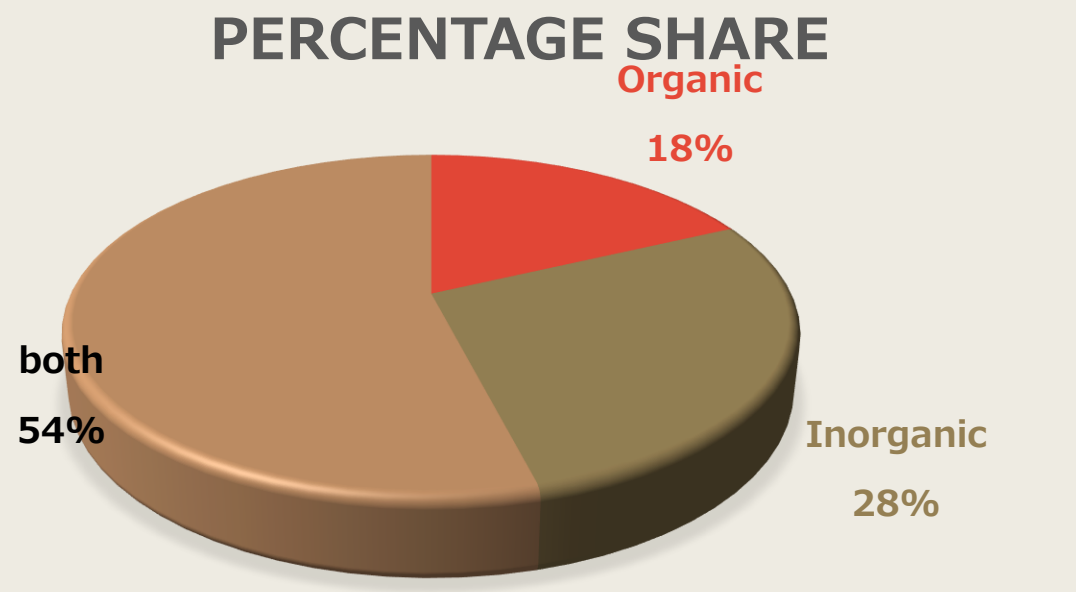
# FERTILIZERS

Fertilizers are additional substances supplied to the crops to increase their productivity. These fertilizers contain essential nutrients required by the plants including nitrogen, potassium and phosphorus.

Fertilizers are mainly classified into two main types :-

- Organic Fertilizers
- Inorganic Fertilizers

Fertilizers used			
Households using fertilizers	Organic and their %age share	Inorganic and their %age share	Both and their % share
116 (100%)	21 (18%)	32 (28%)	63 (54%)



# AGRICULTURAL CREDIT FACILITIES

Agricultural institutions are the institutions which provides credit or which financially supports the farmers by providing them loans at very low rate of interest.

Agricultural Credit Facilities			
Total households having agri. land	Families having KCC and their % age share	Families taking loan and their %age share JK kissan dost finance	Non beneficiaries
116 (100%)	43 (35%)	12 (10%)	61 (55%)

# CONCLUSION

Agriculture plays a vital role in economic share of village Gandyal. Due to introduction of modern agricultural technologies and inorganic fertilizers their productivity also increases. In our study area people were using traditional methods of agriculture but with the passage of time and advancement in technology they adopted modern methods of agriculture. People started using machines such as tiller, combine harvesters, tractors, tractor trailers for various agricultural purposes such as for harvesting, digging etc. In our study area, people are using many technologies such as weather forecasting which helps them to plan their agricultural operations. Initially people in our study area use canals for irrigation purposes, but with the passage of time they are using electric water pumps to pump underground water. Another main change in their agricultural practice is the use of fertilizers. Now people are shifting from organic to inorganic fertilizers, which increases their agricultural output. People also taking the advantage of agricultural credit facilities, people takes credits and loans at a very low interest rates from various governmental organizations, which helps them to carry their agricultural practices easily.



# Thank You

Name Yuvraj Kashyap

Roll no. 0112GEOK21

